

The Role of Communication Strategies in Implementing Serious Creativity Strategies by High School Islamic Studies Teachers

Asma Sulaiman AlFayiz

Recommended citation:

AlFayiz, Asma Sulaiman (2024). "The Role of Communication Strategies in Implementing Serious Creativity Strategies by High School Islamic Studies Teachers". *Profesional de la información*, v. 33, n. 4, e330411.

<https://doi.org/10.3145/epi.2024.ene.0411>

Manuscript received on September 2nd 2024

Accepted on September 18th 2024



Asma Sulaiman AlFayiz ✉

<https://orcid.org/0009-0009-4598-2187>

King Saud University

College of Education

Department of Curricula and Teaching Methods

Riyadh, Saudi Arabia

aalfayiz@ksu.edu.sa

Abstract

This study aims to assess how effectively high school jurisprudent teachers employ serious creativity strategies and identify the obstacles they face. Furthermore, this study focused on the role of communication strategies in implementing serious creativity strategies. Using a descriptive (survey) approach, 71 female teachers were assessed with observation cards and obstacle questionnaires. Results showed a weak overall mean score of 2.29 for the use of creativity strategies. The mean score for obstacles was 3.38, indicating a moderate level. The most significant obstacles were the educational environment (3.68), teachers themselves (3.33), students (3.30), and the curriculum (3.20). No statistically significant differences were found based on teachers' experience or academic qualifications, highlighting systemic issues rather than individual shortcomings. The study provides insights and empirical evidence on current practices and challenges in employing serious creativity strategies within jurisprudent education. It suggests improvements in teacher training, teaching practices, and curriculum design. Specifically, comprehensive training programs on serious creativity strategies should be introduced to ensure teachers are well-prepared and confident. Additionally, further research is recommended to explore the long-term effects and benefits of these strategies in diverse educational settings. Collaboration among educators, policymakers, and curriculum developers is crucial to effectively addressing these challenges and enhance educational outcomes. These efforts will lead to better-prepared and more innovative teachers.

Keywords

Communication Strategies, Level of Practice, Jurisprudence Teachers, Secondary Stage, Serious Creativity Strategies, Obstacles.

1. Introduction

The curriculum in education utilizes a variety of thinking styles, one of which is creativity (Wu *et al.*, 2018). This style delves into unconventional thinking and problem-solving methods, as introduced by Edward De Bono, who developed innovative approaches to teaching analytics and creativity. Serious creativity emerges by linking thinking, perceptual thinking, and self-organizing systems (Lamb *et al.*, 2015). This concept first appeared in 1967 and became a systematic approach in the Oxford English Dictionary. Serious creativity is based on Gestalt theory, adopting a holistic approach to problem perception. It begins with the existence of a problem, particularly one that represents the missing aspect. When rearranging or reformulating the problem, we should approach it comprehensively and examine its components within this framework. Creativity plays a significant role in overcoming obstacles that hinder individual thinking. It provides an opportunity for individuals to solve problems from multiple perspectives, reducing



internal obstacles in their minds, sometimes referred to as "cognitive hindrances." De Bono discovered that creative thinking can only occur in humans because all types of thinking are linear, sequential, and logical, whereas serious creativity has a different nature. Serious creativity employs several methods to deviate from conventional thinking, exploring multiple possibilities and approaches rather than restricting it to a single entry.

The topics of creativity and lateral thinking are crucial in education (**Hamza; Hassan, 2016; Rosenbaum, 2001**), as they directly impact individuals and societies, aiding them in adapting to current and future situations, solving numerous problems, and avoiding potential dangers. However, based on her academic experience as a former public schoolteacher and supervisor for the field training of student teachers, the researcher noticed a deficiency in the teaching of jurisprudence. There is a clear neglect of modern teaching communication strategies (**Djenic; Mitic, 2017**) such as serious creativity strategies. Many jurisprudent teachers tend to adopt traditional methods of imparting information, primarily relying on rote memorization and presentations. Additionally, they often exhibit a pattern of conventional thinking, failing to venture beyond familiar contexts when addressing religious issues.

The focus on communication strategies is rare among educational institutions, especially in high school Islamic studies teachers. The management of educational institutions has ignored the importance of communication strategies in Saudi Arabia (**Alghamdi; Holland, 2020**), particularly in high schools, although communication strategies have vital role in the promotion of serious creativity strategies. Most importantly, the role of communication strategies in implementing serious creativity strategies is very limited, specifically in high school Islamic studies teachers. Several previous studies highlighted the importance of communication strategies in various countries (**Lacarcel; Huete, 2023; Oketch et al., 2023; Chan, 2021; Wijayanto; Hastuti, 2021**), however, it is rarely addressed in relation to the implementation of serious creativity strategies. Therefore, this study is an attempt to highlight the important role of strategies in implementing serious creativity strategies which has vital contribution to the body of knowledge. Furthermore, several previous studies have confirmed this inadequacy in jurisprudent teachers' performance. Studies addressed serious creativity among teachers and highlighted the scarcity and weakness of their use of this type of thinking. This contradicts the importance emphasized by many Arab and foreign studies on the development of serious creativity strategies among teachers.

To verify these observations, this study conducted personal interviews with a group of 20 secondary school jurisprudent teachers. They were asked about their use of serious creative strategies at various stages of the teaching process (planning, implementation, and evaluation). Sixteen agreed on the weak use of serious creativity strategies, including focus, random entry, alternatives, challenges, and harvest strategies. The researcher also examined the lesson plans (planning stage) to determine the availability of serious creativity strategies. She also attended various classes to assess the use of creative strategies during lesson implementation. Furthermore, she reviewed the assessment tests in jurisprudence at the secondary level (evaluation stage). The results indicated low utilization of serious creativity strategies by teachers in all three stages, with an average score of 35% of the total score. The main question arises: How can jurisprudent teachers be effectively trained to integrate serious creative strategies into their teaching processes to enhance student learning outcomes?

The following main question encapsulates the research problem: to what extent do jurisprudent secondary school teachers use serious creativity strategies, and what are the obstacles hindering their use? From this primary inquiry, the following subsidiary questions emerge:

1. To what extent do secondary school jurisprudence teachers use serious creativity strategies?
2. What are the obstacles hindering the use of serious creativity strategies by secondary school jurisprudence teachers from using serious creativity strategies?
3. Are there statistically significant differences (less than 0.05) in the extent to which jurisprudent secondary school teachers use serious creativity strategies based on differences in teaching experience and academic qualifications?

Following the research questions, the objectives of the study are as follows:

1. To identify the extent to which secondary school jurisprudent teachers use creative strategies.
2. To identify obstacles hindering the use of serious creativity strategies by secondary school jurisprudent teachers.
3. To uncover differences in the use of serious creativity strategies by jurisprudent secondary school teachers based on variations in teaching experience and academic qualifications.

This study aligns with modern educational interests and trends, emphasizing the importance of jurisprudent teachers' serious creativity strategies in secondary education. Given the scarcity of local studies on jurisprudence, teachers' use of serious creativity strategies, and the obstacles they face, this study fills a significant gap. This enriches the Arabic academic library and provides a foundation for future research. Findings of the study can help teachers modify their teaching practices to foster serious creativity and enhance the effectiveness of jurisprudent education. Furthermore, this study offers valuable information for supervisors in training jurisprudent teachers, informing the development of training plans and educational programs that promote serious creativity. The study highlights the need to integrate serious creativity strategies into the secondary education curriculum, guiding curriculum developers to redesign

content accordingly. Finally, this study lays the groundwork for future research in jurisprudence education by exploring the use of serious creativity strategies and identifying obstacles, encouraging further investigation of effective teaching strategies and their impact on student learning outcomes.

Finally, this study aimed to identify the level of high school jurisprudence teachers' use of serious creativity strategies as well as the obstacles hindering their practice during the planning, implementation, and evaluation stages. This research is conducted during the second and third semesters of the academic year 1444–1445 AH. This study emphasizes on geographic focus to provide a detailed understanding of the practices and challenges faced by jurisprudence teachers within this specific educational environment. Additionally, this study focused on 71 randomly selected jurisprudent female high school teachers in the Al-Urayja district to gain insights into their teaching practices and experiences.

2. Literature Review

Serious creativity can be described as "an imaginative method for problem-solving that leads to changing an individual's perceptions and concepts about a certain problem, it is a more creative way of using the mind that includes a set of principles, skills, systematic tools, and purposeful methods that surpass cognitive barriers, aiming to break free from traditional thinking constraints." "A thinking style that generates a greater number of solutions and alternatives, enables viewing multiple aspects of the situation or problem, leaps towards practical steps to solve the problem, and adopts a behavioral pattern that makes the individual committed to it, allowing them to search for solutions to their problems using non-traditional or illogical methods." "Extent of use, the term refers to the degree to which the researcher estimates the use of jurisprudent teachers in secondary education as strategies of serious creativity. This ranged from 60% to less than 80%, and from 80% to less than 100%, as included in the observation card paragraphs prepared for this purpose. Furthermore, obstacles defines it as "a set of technical, material, administrative, and supervisory obstacles (Derwing; Munro, 2009; Kristiawan; Muhaimin, 2019) that prevent the achievement and application of something in the process of teaching and learning." It refers to the challenges that prevent jurisprudent teachers from implementing serious creative strategies, as determined by the teacher's score on the questionnaire paragraphs specifically designed for this purpose. The world today is full of changes in all aspects: scientific, cultural, and technological. New skills are emerging that would be necessary to have for a human of the twenty-first century. This has resulted in an impact on what used to be the roles of educational institutions and their workers, leading to demands for reforms within the educational system, including institutions that train teachers. These formative institutions have been and will further remain imperative for the survival of society, and these are the means through which various challenges facing society could be surmounted. The teacher is the cornerstone of the educational process. Success or failure in any educational system depends mainly on the teachers. No matter how incredibly advanced educational systems are introduced by governments, whether in terms of sophisticated infrastructure, modern curricula, or advanced technological methods, desired goals cannot be achieved without well-prepared teachers. Teachers are a significant determinant of quality in an educational system. They are the implementers of the curriculum and turn out to be the main ingredient for the preparation of a learning environment so that students achieve the desired outcome of learning processes. The Holy Quran and the Sunnah of the Prophet explicitly mention the role, importance, and effects of a teacher in the whole process of education. This is evident in the verse: "Moses said to him, 'May I follow you on [the condition] that you teach me from what you have been taught of sound judgment (Quran, 18:66). Recently, educators and researchers, such as Bruner, Robinson, and Ausubel, have agreed on the importance of teachers' roles in the success of the educational process. Consequently, teachers are at the forefront of educational reforms. Given the increasing emphasis on teacher quality, various international, regional, and local organizations led by UNESCO agree on the importance of preparing and training teachers in the twenty-first century as the optimal way to address educational challenges.

Accordingly, conferences and seminars have been directed toward focusing on the professional development of teachers for improving education. Designing programs for training with the aim of improving teachers' professional competence are training programs that equip the teacher with the necessary skills to apply and develop new and innovative teaching methods (Ishchenko; Gorbunoyova, 2024). Therefore, it is essential to have more strategies aimed at the preparation, training, and performance enhancement of teachers with skills to be needed in the future, such as problem-solving, critical thinking, and interpersonal interaction. Interest in CT has been quite overwhelming among researchers and educators alike and finds expressions as a prime focus in teacher performance enhancement and modern educational curricula. In other words, the focus of the educational process has expanded from mere knowledge and facts to concentrating attention on thinking processes and different sorts of cognitive, social, and even cultural skills. That is why teaching and training in critical thinking is becoming increasingly attractive, making learners able to cope with modern problems and acquire problem-solving abilities. This type of thinking based on his understanding of brain mechanisms and neuroscience findings. This led to insights into the brain's functioning, as discussed in his book "The Mechanisms of Mind." The brain organizes sensory information in a self-regulating manner, forms patterns, and then searches for it. The importance of serious creativity lies in its learnability, trainability, and applicability at all educational levels. These tools and methods can be used to generate new ideas and solutions for challenging problems. These methods redirect attention to different perspectives to achieve creative solutions, stimulate the mind to produce more ideas, and consider all ideas without rushing to judge their usefulness. Additionally, it encourages free thinking without imposing limits.

According to **Phillips** (2014), serious creativity restructures thinking by changing concepts and perceptions, thus serving as a foundation for insight and creativity. Its value lies in problem-solving, generating alternatives, and addressing new challenges. According to **Lamb et al.** (2015), serious creativity fosters creativity by producing alternatives, unique solutions, and new ideas, thus aiding the continuous development of students' scientific interests and improving their learning capabilities.

Serious creativity relies on four main components: hypothesis selection, question asking, creativity, and analysis. Serious creativity is supported by four key elements, hypothesis selection, question asking, creativity, and analysis. The set elements are established through the adoption of several strategies including focus, random entry, alternatives, challenges, and harvesting, as asserted by **Al-Hwajji and Al-Khazaelah** (2015). These strategies aid an individual in coming up with new creative ideas that contradict conventional concepts and sort the efforts of creativity into different types of categories with the help of harvesting lists.

The importance of utilizing genuine creativity in teaching strategies has garnered the attention of researchers at both Arab and international levels, leading to numerous studies and research projects. To determine the impact of using a proposed strategy based on serious creativity theory in teaching geography to develop central thinking skills and creative decision making among first-grade students in technical education is required. To determine the level of creativity among gifted secondary school students in Jeddah is vital in communication. Literature sought to ascertain the effectiveness of a program based on serious creativity theory in developing higher-order thinking skills and self-organization among philosophical teacher students. To recognize the effectiveness of lateral thinking strategies in enhancing communication skills and developing the ability of primary school students to learn English, as well as their general learning ability is important. Finally, **More and Jagadeesh** (2017) explored the relationship between the ability of secondary school students in India to think laterally and their academic achievement and performance.

One of the most significant findings of previous studies is the effectiveness of serious creativity strategies in improving the educational process for students at all academic levels. This underscores the importance of jurisperit teachers using creative strategies in their teaching. These strategies enable teachers to guide their students in employing previous experiences to generate new ideas; understand the relationships between ideas; express new concepts through images, symbols, or shapes; present authentic alternatives; organize their thoughts; and assist them in offering creative solutions to problems.

2.1. Communication Strategies in Teacher-Student and Teacher-Parent Dynamics

Communication strategies play a central role in modelling the dynamics between teachers, students (**West**, 1994; **Lampos et al.**, 2021), as well as parents, advancing a collaborative along with supportive environment. The supportive environment due to the communication strategies between student and teacher has the ability to advance learning. Effective communication between teachers and students increases mutual understanding (**Duta et al.**, 2015; **Asrar et al.**, 2018; **Sutiyatno**, 2018), assists clarify academic expectations, and encourages student engagement. Teachers who aggressively listen as well as provide constructive feedback create an atmosphere of the trust, enabling students to express their concerns and ideas more openly. Therefore, communication strategies serve as plans for communicating information related to the specific issue, event, situation, or audience. They serve as the blueprints for communicating with the student and teacher.

Similarly, clear and consistent communication with parents strengthens the teacher-parent relationship (**Garbacz et al.**, 2015), encouraging parental involvement in their child's education. Communication between the parents of students has the potential to enhance student learning through various ways. This partnership permits parents to stay informed about their child's academic progress, behavior, and emotional well-being. Teachers who adopt varied communication strategies (**Berkhof et al.**, 2011; **Berkovich; Eyal**, 2018), such as repeated meetings, the digital platforms, as well as written reports, guarantee that both students and parents feel heard and supported. Thus, teacher communication is most important and the implementation of strategies are critical. These strategies also assist in addressing issues early on, avoiding misunderstandings and fostering a more organized educational experience. Finally, communication strategies are focal in bridging the gap between home and school, improving overall student success as well as well-being.

2.2. The role of Technology in Facilitating Communication Strategies

Technology has crucial role in communication strategies because communication is dependent on technology in the current age of digitalization (**Flammia et al.**, 2010; **Hung; Higgins**, 2016; **Kaphingst et al.**, 2009). Therefore, technology plays a crucial role in increasing communication strategies, making interactions more efficient, more accessible, and timely. The implementation of better technological tools in the current environment of digitalization is crucial for smooth communication in educational institutions. With tools like emails, messaging apps, and learning management systems (**Koh; Kan**, 2021), teachers can easily share updates, assignments, and feedback with students and parents.

Virtual platforms are more crucial in communication among educational institutions (Kerimbayev *et al.*, 2020; Magd; Khan, 2022). It encompasses a wide range of technologies such as email, video conferencing, instant messaging, and social media platforms, enabling real-time or asynchronous communication among team members, departments, and the entire institution. These platforms such as video conferencing enable real-time communication, allowing for parent-teacher meetings or student consultations, regardless of geographical barriers. Digital tools like online forums as well as social media advance collaborative learning and continuous dialogue, encouraging student engagement. Student engagement is most critical in learning (Vermeulen; Volman, 2024; Li *et al.*, 2024; Tong *et al.*, 2024) which is also dependent on communication through technology. Automated systems also streamline administrative tasks, such as sending reminders or performance reports, ensuring clear and consistent communication. Therefore, technology modernizes as well as expands communication strategies, creating more connected and supportive educational environments.

3. Methodology

The descriptive (survey) method was employed, as it is suitable for achieving the study's objectives and answering its questions. The study population comprised all jurisprudent teachers in secondary education within government schools in the Al-Urayja district, totaling 87 teachers, according to the statistics of the Education Administration in Riyadh for the academic year 1444-1445 AH. The study sample consisted of 71 female jurisprudent teachers in secondary education, selected from the study population using random sampling methods. Table 1 illustrates the distribution of study group members according to their variables.

Table 1: Distribution of Study Group Members According to Their Variables.

Variable	Level	Frequency	Percentage
Educational Qualification	Bachelor's Degree	56	78.9
	Postgraduate	15	21.1
Total		71	100%
Teaching Experience	Less than 5 years	59	83.1
	More than 5 years	12	16.9
Total		71	100%

Table 1 illustrates that most of the study group members, 78.9%, hold a bachelor's degree, while only 21.1% have a postgraduate degree. Furthermore, 83.1% of the participants have less than 5 years of teaching experience, while only 16.9% have more than 5 years. This indicates that most participants are relatively inexperienced and possess undergraduate qualifications, which may influence their familiarity and comfort with implementing serious creativity strategies in their teaching practices.

3.1 Study Tools

1. Preparation of Observation Card for Assessing the Use of Jurisprudence Teachers in Secondary Education for Serious Creativity Strategies:

a. Constructing the Observation Card: We constructed the observation card by referencing the theoretical and research literature on serious creativity. It initially includes three basic skills: teaching planning (13 skills), teaching implementation (30 skills), and teaching evaluation (13 skills). Responses were graded on a five-point Likert scale ranging from very high to very low.

b. Validity of the Observation Card: Eight experts in curriculum development, teaching methods in Islamic sciences, and psychology reviewed the card. We adjusted the card to include 11 planning skills, 29 skills implementation skills, and 12 evaluation skills based on their feedback.

We assessed the reliability of the Observation Card by applying it to a sample of 10 teachers. The researcher and secondary supervisor observed each teacher's performance twice. The reliability was calculated using the inter-rater agreement method and Cooper's equation. The results are as follows:

Table 2: Agreement Coefficients.

Total Vocabulary Count of the Card	Agreement Occurrences	Disagreement Occurrences	Agreement Percentage
52	44	8	84.6

Table 2 indicates an agreement percentage of (84.6), which is high, indicating the high reliability of the observation card.

Cooper's Reliability Coefficient = (agreement occurrence × 100%) / (agreement occurrence + disagreement occurrence).

$$= (44 \times 100\%) / 52$$

$$= 84.6\%$$

2. Preparation of a Questionnaire on Obstacles to the Use of Jurisprudence Teachers in Secondary Education for Serious Creativity Strategies:

a. Questionnaire Construction: The questionnaire consisted of four dimensions related to obstacles associated with the teacher, students, curriculum, and learning environment. The first dimension included 10 items, the second dimension had eight items, and the third and fourth dimensions each contained nine items. Responses were rated on a five-point Likert scale, ranging from very high (5) to very low (1).

b. Questionnaire Validity: Eight experts in curriculum development, teaching methods in Islamic sciences, and psychology reviewed the questionnaire after its initial preparation. We adjusted the questionnaire to include 10 items in the first dimension, eight items in the second dimension, and nine items each in the third and fourth dimensions based on their feedback.

c. Internal Consistency of the Questionnaire: We modified questionnaire was administered to 30 teachers. We calculated the Pearson correlation coefficient to determine internal consistency.

Table 3: Correlation Coefficients Between Questionnaire Statements and Their Dimension and Total Scores.

Statement Number	Correlation Coefficient with Dimension	Correlation Coefficient with Overall Questionnaire Score	Statement Number	Correlation Coefficient with Dimension	Correlation Coefficient with Overall Questionnaire Score
Dimension "Obstacles to the Use of Teachers for Serious Creative Strategies Related to Jurisprudence Teacher"					
1	0.497**	0.387*	6	0.471**	0.412**
2	0.471**	0.308*	7	0.699**	0.493**
3	0.520**	0.375*	8	0.739**	0.660**
4	0.414**	0.402**	9	0.446**	0.349*
5	0.458**	0.486**	10	0.567**	0.464**
Dimension "Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Student"					
1	0.721**	0.643**	5	0.720**	0.546**
2	0.540**	0.359**	6	0.700**	0.539**
3	0.708**	0.503**	7	0.705**	0.564**
4	0.762**	0.533**	8	0.649**	0.406*
Dimension "Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Curriculum"					
1	0.481**	0.341**	6	0.763**	0.565**
2	0.483**	0.387**	7	0.711**	0.549**
3	0.761**	0.544**	8	0.720**	0.610**
4	0.682**	0.547**	9	0.696**	0.578**
5	0.639**	0.435**			
Dimension "Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Learning Environment"					
1	0.605**	0.467**	6	0.673**	0.492**
2	0.729**	0.412**	7	0.699**	0.461**
3	0.682**	0.398**	8	0.510**	0.450**
4	0.437**	0.521**	9	0.634**	0.370*
5	0.552**	0.402**			

** Significance level at 0.01.

Table 3 indicates the positive correlation coefficients between each statement of the questionnaire and the total score of its respective dimension, as well as the overall questionnaire score. These coefficients are statistically significant at the 0.05 and 0.01 levels, indicating moderate to high validity of the questionnaire items for field application. Table 4 shows the Pearson correlation coefficients for each dimension of the questionnaire.

Table 4: Pearson Correlation Coefficients for Each Dimension of the Questionnaire, with the Overall Questionnaire Score.

Dimension	Correlation Coefficient with Overall Questionnaire Score
Dimension 1: Obstacles to the Use of Teachers for Serious Creative Strategies Related to Jurisprudence Teacher	0.710**
Dimension 2: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Student	0.745**
Dimension 3: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Curriculum	0.767**
Dimension 4: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Learning Environment	0.668**
** Significance level at 0.01	

It is worth noting that all correlation coefficient values between the dimension score and the overall questionnaire score are high and statistically significant at the 0.01 level.

D. Reliability of the Questionnaire: The reliability of the questionnaire was calculated using the Cronbach's alpha coefficient. Table 5 illustrates the reliability coefficients for the questionnaire dimensions, as follows:

Table 5: Cronbach's Alpha Coefficients for Measuring Questionnaire Reliability.

Dimension	Number of Items	Reliability Coefficient
Dimension 1: Obstacles to the Use of Teachers for Serious Creative Strategies Related to Jurisprudence Teacher	10	0.769
Dimension 2: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Student	8	0.842
Dimension 3: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Curriculum	9	0.837
Dimension 4: Obstacles to the Use of Teachers for Serious Creative Strategies Related to the Learning Environment	9	0.793
Total Questionnaire Reliability	36	0.883

It is evident from the above Table 5 that the reliability coefficients for the study dimensions were high, ranging from

0.769 to 0.842. The overall reliability coefficient of the questionnaire was 0.883, indicating a high level of reliability and suitability for field application.

After completing the tool preparation procedures and ensuring quality, the researcher deemed the tools to be ready for application. To standardize the judgment criteria regarding the extent of secondary school jurisprudence teachers' use of serious creativity strategies and the obstacles they faced, the average scores for each skill and obstacle were converted into percentages. We achieved this by dividing the actual arithmetic mean of the skill or obstacle score by the maximum score, and then multiplying the result by 100.

We adopted the following criteria, as shown in the Table 6, to issue judgments accurately and easily:

Table 6: Criteria for Describing Use of Serious Creative Strategies and Agreement on Obstacles by Jurisprudence Teachers.

Degree of Agreement on Obstacles to Using Serious Creative Strategies	Description of the Degree of Use of Serious Creative Strategies	Degree of Agreement	Percentage Range of Scores
Very low	Very low	From 1.0 to 1.80	From 0 to less than 20%
Low	Low	From 1.80 to 2.60	From 20 to less than 40%
Moderate	Moderate	From 2.61 to 3.40	From 40 to less than 60%
High	High	From 3.41 to 4.20	From 60 to less than 80%
Very high	Very high	From 4.21 to 5.0	From 80 to less than 100%

E. Study Implementation Procedures:

The first step involved identifying the study population and sample. The population consisted of all jurisprudent secondary school teachers in the Al-Urayja district, with a sample of 71 teachers selected for the study as given in Table 6.

The subsequent phase entailed the creation and enhancement of 71 teachers who applied these tools on 28-5, 1444, AH. After the application, we gathered the data and subjected them to analysis. We extracted the results, presented them, and made recommendations based on the findings.

F. Statistical processing methods

The study utilized The Statistical Package for the Social Sciences (SPSS 28) was used to analyze the data and obtain the results. We employed several statistical methods, including frequencies and percentages, to describe the characteristics of the study sample, calculated means and standard deviations for the responses of the study sample individuals, applied Cooper's formula to verify the reliability of the observation card, used the Pearson correlation coefficient to verify the internal consistency of the questionnaire, applied Cronbach's alpha coefficient to ensure the validity of the questionnaire, and used an independent t-test to compare two independent samples.

4. Results

This study examined the extent of serious creativity strategies used by jurisprudent teachers in secondary education in Saudi Arabia as well as the obstacles they face. The results showed weak overall usage of these strategies, with moderate use in lesson planning but weak application in teaching implementation and evaluation. We identified the educational environment, teacher readiness, student receptivity, and curriculum design as the main obstacles, and found no significant differences based on teachers' experience or qualifications. We address the results section as follows which presents and discusses the results obtained from the study group's responses to the following research questions.

First Question: What is the extent of secondary school Jurisprudence teachers' use of serious creative strategies?

To answer this question, arithmetic means and standard deviations were calculated for each serious creative strategy used by the study group, as shown in the following Table 7.

Table 7: Arithmetic Means and Standard Deviations for Each Teaching Phase Part According to Serious Creativity Strategies, Total Scores, and Rankings Among the Study Group.

M	Axes	Mean	Standard Deviation	Ranking	Practice Level
1	Planning Teaching According to Serious Creativity Strategies	2.67	0.41	1	Moderate
2	Implementing Teaching According to Serious Creativity Strategies	1.85	0.34	3	Weak
3	Evaluating Teaching According to Serious Creativity Strategies	2.35	0.4	2	Weak
-	Overall Mean	2.29	0.27	-	Weak

The preceding table illustrates that the extent of secondary jurisprudence teachers' use of serious creative strategies in the study group was weak. The overall mean for the use of serious creativity strategies in all axes was 2.29 out of 5. Specifically, teachers' use of the "Planning Teaching According to Serious Creativity Strategies" axis ranked first, with a mean of 2.67 out of 5 and a standard deviation of 0.41, indicating a moderate practice level. Meanwhile, the "Evaluating Teaching According to Serious Creativity Strategies" axis ranked second, with a mean of 2.35 out of five and a standard deviation of 0.40, demonstrating a weak practice level. The "Implementing Teaching According to Serious Creativity Strategies" axis ranked third with a mean of 1.85 out of 5 and a standard deviation of 0.34, indicating a weak practice level.

These results indicated that the study group lacked familiarity with the most serious creative strategies used in this study. The limited focus on training teachers to use and apply these strategies in their courses, along with the time constraints and challenges they encounter during the teaching process, partially accounts for this. Pre-service teacher-training programs prioritize professional qualifications over pedagogical qualifications, neglecting emphasis on thinking strategies. In addition, in-service training programs inadequately prepare teachers to use creative strategies, see Table 7.

Experience plays a significant role in the learning process; continuous re-knowledge makes it easier for individuals to apply, whereas new experiences are not as easy to apply continuously. Therefore, teachers tend to avoid new and challenging experiences, such as using serious creativity strategies owing to time constraints, scarcity of incentives for outstanding teaching performance, excessive teaching responsibilities, limited time per session, and fear of inadequate time to complete the curriculum during the school year.

The results of this study agree with literature, who found that sixth-grade Arabic language teachers did not use their lateral thinking skills well during teaching. Few studies differ from the results, who found that Arabic language teachers in Jordan's upper basic stage used their lateral thinking skills to a moderate degree. Below are the detailed results regarding the extent of secondary jurisprudence teachers' use of serious creative strategies.

First: Part One: Planning Teaching According to Serious Creativity Strategies:

Table 8: Frequencies, Means, and Standard Deviations of Responses on Secondary Jurisprudence Teachers' Use of Creative Thinking in Lesson Planning.

No.	Statement	Usage Level								Mean	Standard Deviation	Rank	Usage Level		
		Very low		Low		Medium		High						Very high	
		K	%	K	%	K	%	K	%					K	%
1	include fundamental details such as the date, time, and subject of the lesson in the lesson plan.	6	8.5	8	11.3	19	26.8	26	36.6	12	16.9	3.42	1.15	1	High
2	plan to ask pre-assessment questions at the beginning of the lesson.	14	19.7	10	14.1	11	15.5	25	35.2	11	15.5	3.13	1.38	2	Medium
5	During the teaching process, plan to ask formative questions at different levels.	1	1.4	20	28.2	41	57.7	7	9.9	2	2.8	2.85	0.73	3	Medium
6	We are dividing the stages of the lesson plan according to the class time.	2	2.8	20	28.2	39	54.9	9	12.7	1	1.4	2.82	0.74	4	Medium
7	I intend to introduce the lesson using innovative methods such as story, scenario, dramatic scene, image presentation, and Quranic verse presentation.	8	11.3	23	32.4	27	38	11	15.5	2	2.8	2.66	0.97	5	Medium
11	I intend to pose high-level concluding questions at the end of the lesson.	13	18.3	18	25.4	25	35.2	12	16.9	3	4.2	2.63	1.1	6	Medium
10	I am choosing appropriate teaching techniques and tools for the lesson.	6	8.5	34	47.9	25	35.2	5	7	1	1.4	2.45	0.81	7	Low
9	Designing exciting educational situations for creative thinking strategies is crucial.	7	9.9	37	52.1	17	23.9	9	12.7	1	1.4	2.44	0.89	8	Low
3	We are formulating high-level objectives that align with creative thinking strategies.	7	9.9	37	52.1	17	23.9	9	12.7	1	1.4	2.44	0.89	9	Low
4	We must identify the necessary educational prerequisites to accomplish the lesson objectives.	12	16.9	27	38	29	40.8	3	4.2	0	0	2.32	0.81	10	Low
8	We plan lessons using creative thinking strategies such as focus, random entry, alternatives, challenge, and harvesting.	17	23.9	26	36.6	21	29.6	7	9.9	0	0	2.25	0.94	11	Low
Total mean											2.67	0.41	Mean		

Table 8 shows that jurisprudent teachers at the secondary level used serious creativity strategies for teaching planning, which was moderate. The overall mean score for usage was 2.67, with a standard deviation of 0.41. Specifically, statement number 1, "Writing basic information in the lesson plan (date, class, lesson topic)," ranked first with a high usage score, averaging 3.42 and a standard deviation of 1.15. Statement number 2, "Planning to ask pre-assessment questions at the beginning of the class," ranked second with a moderate usage score, averaging 3.13 and a standard deviation of 1.38. In contrast, Statement 8, "Planning lessons in light of serious creativity strategies: focus strategy, random entry strategy, alternative strategy, challenge strategy, harvest strategy," ranked eleventh and last, with a low usage score, averaging 2.25, and a standard deviation of 0.94, see Table 8.

Most teachers lacked sufficient awareness of the basic skills used during planning, which accounted for this result. Many rely on lesson preparation cards provided by the Ministry of Education without any modifications. They justified this by stating that educational supervisors focus more on completing curriculum topics than on lesson plans themselves. Additionally, teachers often lack sufficient awareness of planning teaching according to serious creativity strategies, and how to employ these strategies in the teaching process stages. Many strategies received a low usage score, which is consistent with the poor results of the teaching implementation.

The results of this study are consistent with other studies, who found a lack of use of lateral thinking skills by sixth-grade Arabic language teachers during the teaching stages, including planning. The degree of achievement of teaching competencies in the planning axis for intermediate- and secondary-level teachers was moderate. These findings differ from those studies, who indicated that the degree of practice of secondary-level physics teachers in Riyadh in lateral thinking skills was moderate.

Secondly, we will discuss Part Two: Implementing Teaching According to Serious Creative Strategies.

The analysis in Table 9 indicates that the use of jurisprudent teachers at the secondary level to implement teaching according to serious creativity strategies is low. The overall mean score for usage was 1.85, with a standard deviation of 0.34. Specifically, phrase (1), "Writing basic information in the lesson plan (date, period, lesson topic)," ranked first

among paragraphs implementing teaching according to serious creativity strategies, with a high usage degree averaging 3.49 and a standard deviation of 0.93. Phrase (2), "Presenting the lesson using innovative methods such as (story, situation, theatrical scene, image presentation, Quranic verse presentation)," ranked second, with a moderate usage degree averaging 3.31 and a standard deviation of 0.92. Conversely, phrase (6), "Asking students to make the focal point they identified the center of their interest," ranked last, with a low usage degree averaging 1.83 and a standard deviation of 0.93.

Table 9: Descriptive Statistics on Jurisprudence Teachers' Use of Creative Strategies in Secondary Education.

No.	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
1	Write basic information in the lesson plan (date, period, lesson topic).	0	0	11	15.5	24	33.8	26	36.6	10	14.1	3.49	0.93	1	High
2	Present the lesson using innovative methods such as story, situation, dramatic scene, image presentation, and Quranic verse presentation.	0	0	15	21.1	26	36.6	23	32.4	7	9.9	3.31	0.92	2	Medium
3	For the lesson, use appropriate teaching techniques and tools.	10	14.1	20	28.2	34	47.9	6	8.5	1	1.4	2.55	0.89	3	Low
4	Apply serious creative strategies in jurisprudence lessons.	7	9.9	33	46.5	28	39.4	2	2.8	1	1.4	2.39	0.76	4	Low
5	Announce the specific focus point of the educational task that the students will implement by writing it on the board. Often, the focus point is a concept, such as learning.	14	19.7	28	39.4	24	33.8	4	5.6	1	1.4	2.3	0.9	5	Low
9	When focusing on a task, adjust the necessary time.	14	19.7	37	52.1	20	28.2	0	0	0	0	2.08	0.69	6	Low
10	Allow students to randomly use any word from the list of words written on the board.	12	16.9	41	57.7	18	25.4	0	0	0	0	2.08	0.65	7	Low
17	Encourage students to generate a set of multiple alternatives for the posed problem without issuing evaluative judgments.	18	25.4	30	42.3	23	32.4	0	0	0	0	2.07	0.76	8	Low
26	Ask students to write down the proposed ideas in a collaborative group setting.	15	21.1	37	52.1	19	26.8	0	0	0	0	2.06	0.69	9	Low
11	Ask students to generate a set of points derived from the focus point that was randomly chosen for them.	15	21.1	39	54.9	15	21.1	2	2.8	0	0	2.06	0.73	10	Low
14	Encourage students to move along multiple side paths through the random word.	16	22.5	39	54.9	15	21.1	1	1.4	0	0	2.01	0.71	11	Low
18	Urge students to arrange the generated alternatives to solve the posed problem in the best, least costly, simplest, fastest, and least erroneous order.	17	23.9	37	52.1	17	23.9	0	0	0	0	2	0.7	12	Low
15	Encourage students to explore new avenues until they reach their desired outcome.	17	23.9	38	53.5	16	22.5	0	0	0	0	1.99	0.69	13	Low
16	Ask students to generate multiple definitions of the posed problem for a solution or research project.	18	25.4	36	50.7	17	23.9	0	0	0	0	1.99	0.71	14	Low
25	Encourage students to listen to ideas proposed by others.	19	26.8	34	47.9	18	25.4	0	0	0	0	1.99	0.73	15	Low
27	Encourage students to classify the proposed ideas into categories (negative, positive, good, unusable, stimulating, and unstimulating).	22	31	30	42.3	18	25.4	1	1.4	0	0	1.97	0.79	16	Low
19	Ask students to challenge traditional solutions to the problem.	21	29.6	33	46.5	17	23.9	0	0	0	0	1.94	0.73	17	Low
12	Ask students to randomly choose any point (concept) from the many points they have generated, and then make it the focus of their attention again.	22	31	33	46.5	14	19.7	2	2.8	0	0	1.94	0.79	18	Low
13	Allow students to generate new ideas by adding lines and circles based on the focus point they chose randomly.	23	32.4	30	42.3	18	25.4	0	0	0	0	1.93	0.76	19	Low
28	Encourage students to search for specific information related to the task they have been trained on from multiple sources, documenting those sources.	22	31	33	46.5	15	21.1	1	1.4	0	0	1.93	0.77	20	Low
21	Propose a set of exciting alternatives, even if they seem illogical.	22	31	33	46.5	16	22.5	0	0	0	0	1.92	0.73	21	Low
29	Encourage students to present the information they have obtained from various sources to their peers, highlighting those sources.	21	29.6	36	50.7	13	18.3	1	1.4	0	0	1.92	0.75	22	Low
22	Challenge the proposed solution to the problem by applying technological principles to it.	20	28.2	38	53.5	13	18.3	0	0	0	0	1.9	0.68	23	Low
8	Guide students to determine the appropriate learning style for their learning patterns.	22	31	35	49.3	13	18.3	1	1.4	0	0	1.9	0.74	24	Low
23	Engage in a discussion with the students about the necessity of altering the current state of the presented problem.	24	33.8	32	45.1	15	21.1	0	0	0	0	1.87	0.74	25	Low
24	Encourage students to improve the generated ideas.	24	33.8	33	46.5	14	19.7	0	0	0	0	1.86	0.72	26	Low
20	Encourage students to explore unconventional approaches and think creatively.	24	33.8	34	47.9	13	18.3	0	0	0	0	1.85	0.71	27	Low
7	Guide students to determine the appropriate learning style for the educational task of learning.	32	45.1	19	26.8	19	26.8	1	1.4	0	0	1.85	0.87	28	Low
6	Ask students to focus their attention on the designated focus point.	34	47.9	18	25.4	16	22.5	3	4.2	0	0	1.83	0.93	29	Low
Total mean												1.85	0.34	Low	

These findings suggest that jurispudent teachers' teaching practices are predominantly traditional, focusing on theoretical aspects and deviating from practical aspects related to serious creativity strategies. This may be due to the lack of pre-service and in-service programmers. Because of their lack of necessary skills, jurispudent teachers urgently require training programs to employ serious creativity strategies. Additionally, several obstacles impede the implementation of these strategies, including teachers' unfamiliarity, variations in their application skills, density of academic material, time constraints, and inadequate educational environments, such as small classroom spaces, high student density, and behavioral issues.

Furthermore, the scarcity of material resources and classroom facilities negatively affects teachers' abilities to use these strategies. Administrative burdens such as school events and open days also put pressure on jurispudent teachers, affecting class time and curriculum completion. The development of jurisprudence curricula at the secondary level faces challenges, including teachers' adherence to traditional lecturing methods, which hinders the success of new curricula. Thus, there is a need for developmental courses that enable teachers to use modern teaching strategies.

Third: Part Three: Teaching Evaluation According to Serious Creativity Strategies:

The previous Table 10 shows that secondary jurisprudence teachers' use of teaching evaluation according to serious creativity strategies was low, with a mean score of 2.35 and a standard deviation of 0.40. Specifically, Item (6), "Giving students enough time to think about the answer," ranked first among the teaching evaluation items according to serious creativity strategies, with a medium level of use, averaging 2.94 and a standard deviation of 0.82. Following

that, item (1), "Applying continuous assessment while teaching Jurisprudence," ranked second, with a medium level of use, averaging 2.93 and a standard deviation of 1.05. Item (12), "Using evaluation results to modify teaching methods," ranked last, with a low level of use, averaging 1.97 and a standard deviation of 0.76.

Table 10: Descriptive Statistics on Secondary School Jurisprudence Teachers' Use of Creative Strategies in Assessments.

No.	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
6	This method gives students sufficient time to think about the answer.	3	4.2	17	23.9	32	45.1	19	25.6	0	0	2.94	0.82	1	Medium
1	While teaching jurisprudence, continuous assessment is applied.	4	5.6	23	32.4	24	33.8	14	19.7	6	8.5	2.93	1.05	2	Medium
2	The program uses diverse assessment methods to evaluate students.	7	9.9	27	38	20	28.2	13	18.3	4	5.6	2.72	1.06	3	Medium
4	Trains students on self-assessment.	4	5.6	33	46.5	32	45.1	2	2.8	0	0	2.45	0.65	4	Low
5	The teacher asks students to correct their classmates' mistakes.	11	15.5	29	40.8	27	38	3	4.2	1	1.4	2.35	0.85	5	Low
10	The teacher discusses students' ideas and interpretations to ensure their understanding of jurisprudence lessons.	13	18.3	33	46.5	20	28.2	4	5.6	1	1.4	2.25	0.87	6	Low
7	The teacher assigns homework that measures multiple cognitive skills.	13	18.3	35	49.3	21	29.6	2	2.8	0	0	2.17	0.76	7	Low
9	The teacher diagnoses strengths and weaknesses in students' performance during the lesson.	18	25.4	25	35.2	26	36.6	2	2.8	0	0	2.17	0.84	8	Low
11	The teacher asks students to record their acquired knowledge and skills at the end of the lesson.	15	21.1	34	47.9	20	28.2	2	2.8	0	0	2.13	0.77	9	Low
8	The teacher provides timely and appropriate feedback to students about their learning level.	16	22.5	33	46.5	21	29.6	1	1.4	0	0	2.1	0.76	10	Low
3	The program uses evaluative questions to measure thinking skills.	23	32.4	32	45.1	7	9.9	6	8.5	3	4.2	2.07	1.07	11	Low
12	The teacher uses assessment results to modify teaching methods.	20	28.2	34	47.9	16	22.5	1	1.4	0	0	1.97	0.76	12	Low
General Mean												2.35	0.4		Low

This finding indicates that teachers' teaching evaluation practices are mostly traditional. Many teachers do not apply all these methods because of a lack of knowledge or time constraints. Additionally, most teachers rely heavily on tests to evaluate their students because of their transparency and effectiveness in the educational environment. Some teaching materials may require more cognitive abilities and some lessons may be more difficult, creating a barrier for teachers to use all evaluation methods. Furthermore, teachers' lack of conviction about the importance and usefulness of these methods or their insufficient knowledge of their use may explain this situation.

Question Two: What are the obstacles that jurisprudence teachers in secondary education face in using serious creative strategies?

To answer this question, we calculated the frequencies, percentages, means, standard deviations, and ranks of the study participants' responses on the dimensions of the obstacle's axis. The following Table 11 presents the results.

Table 11: Mean Scores and Standard Deviations of the Study Participants' Responses on the Obstacle Axis Dimensions.

No.	Dimensions	Mean Score	Standard Deviation	Rank	Degree of Agreement
1	The use of serious creative strategies related to jurisprudence poses obstacles for teachers.	3.33	0.56	2	Moderate
2	The use of serious creative strategies poses obstacles for students.	3.3	0.75	3	Moderate
3	The use of serious creative strategies related to the curriculum encounters obstacles.	3.2	0.78	4	Moderate
4	The educational environment presents obstacles to the implementation of serious creative strategies.	3.68	0.68	1	High
General Mean Score		3.38	0.5	-	Moderate

The above Table 11 indicates that study participants rated the "obstacles facing the use of serious creative strategies by Jurisprudence teachers in secondary education" as moderate overall, with a mean score of 3.38 out of 5. The dimension "obstacles related to the educational environment" ranked first, with a high degree of agreement, achieving a mean score of 3.68 and a standard deviation of 0.68. The dimension "obstacles related to jurisprudence teachers" ranked second, demonstrating a moderate degree of agreement, with a mean score of 3.33 and a standard deviation of 0.56. The dimension "obstacles related to students" ranked third, with a moderate degree of agreement, a mean score of 3.30, and a standard deviation of 0.75. Lastly, the dimension "obstacles related to the curriculum" ranked fourth, with a moderate degree of agreement, a mean score of 3.20, and a standard deviation of 0.78.

The following Table 12 provide a detailed breakdown of the obstacles jurisprudent teachers in secondary education face when using serious creative strategies. Firstly, this study focused to examine the various obstacles jurisprudent teachers face when implementing serious creative strategies.

The Table 12 indicates that the study group's response on the dimension of "obstacles facing the use of serious creative strategies by jurisprudence teachers" was generally moderate, with an overall mean agreement score of 3.33 5. Agreement was highest for statement (4), "The abundance of educational and administrative tasks assigned to them," which ranked first among the statements related to obstacles, with a high degree of agreement (3.90 out of 5) and a standard deviation of 1.14. Statement (6), "Belief in the need for teaching Jurisprudence using serious creative strategies to require prior planning," ranked second, with a high degree of agreement (3.63/5) and a standard deviation of 1.09. Meanwhile, statement (8), "Belief in the difficulty of using serious creative strategies in teaching Jurisprudence curricula," ranked tenth and last, with a moderate degree of agreement (2.89 out of 5) and a standard deviation of 1.19.

Table 12: Descriptive Statistics on Obstacles Facing Jurisprudence Teachers Using Creative Strategies.

No	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
4	They are tasked with a multitude of educational and administrative responsibilities.	2	2.8	12	16.9	1	1.4	32	45.1	24	34	3.9	1.14	1	High
6	I believe that using serious creative strategies to teach jurisprudence requires prior planning.	0	0	19	26.8	2	2.8	36	50.7	14	20	3.63	1.09	2	High
9	There are no incentives to motivate Jurisprudence teachers to employ serious and innovative methods.	1	1.4	19	26.8	4	5.6	32	45.1	15	21	3.58	1.14	3	High
2	Inefficient in-service training programs.	2	2.8	13	18.3	15	21.1	29	40.8	12	17	3.51	1.07	4	High
10	There are no realistic problems that push students' thinking.	3	4.2	18	25.4	8	11.3	33	46.5	9	13	3.38	1.13	5	متوسطة
7	I believe that teaching jurisprudence using serious creative strategies takes a long time.	2	2.8	26	36.6	5	7	31	43.7	7	9.9	3.21	1.13	6	Medium
1	Unqualified individuals are entering the teaching profession.	2	2.8	23	32.4	9	12.7	33	46.5	4	5.6	3.2	1.05	7	Medium
5	Jurisprudence teachers are used to traditional methods, such as lecturing.	2	2.8	27	38	11	15.5	26	36.6	5	7	3.07	1.07	8	Medium
3	Teachers of jurisprudence are accustomed to traditional methods like lecturing.	6	8.5	30	42.3	5	7	24	33.8	6	8.5	2.92	1.2	9	Medium
8	The belief stems from the challenge of incorporating serious and creative strategies into jurisprudence curricula.	4	5.6	34	47.9	7	9.9	18	25.4	8	11	2.89	1.19	10	Medium
Mean												3.33	0.56	Low	

Teachers bear numerous burdens, particularly in educational and administrative tasks such as monitoring, shifts, and morning line follow-ups, which contribute to these results. These tasks overload teachers and hinder their ability to fulfill their teaching responsibilities, distancing them from their core mission of educating students, monitoring their academic achievement, addressing academic problems, and finding solutions. This negatively affects their ability to apply serious and creative strategies during lectures, which necessitates thorough preparation and planning.

Pre-service teacher preparation programs prioritize professional qualifications over pedagogical ones and deprive teachers of their attention to thinking strategies. Additionally, a lack of in-service training programs leads to professional growth deficiencies, which negatively affect performance. Moreover, some teachers are accustomed to traditional teaching methods and believe that using creative strategies in teaching is difficult. Furthermore, a lack of material and moral incentives diminishes students' motivation to apply innovative teaching methods. Teachers need material and moral reinforcement, leading them to further dedication within the classroom and, thus, the application of modern teaching strategies. Some teachers also require training courses to understand the importance of modern teaching strategies and to overcome obstacles when using them with learners. **Secondly**, let's discuss the challenges that female students face when using serious creative strategies.

Table 13: Descriptive Statistics on Obstacles to Using Creative Strategies Related to Female Students.

No.	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
8	I am getting accustomed to adhering to ready-made opinions and solutions to problems.	1	1.4	14	19.7	5	7	40	56.3	11	16	3.65	1.02	1	High
2	Relying on information memorization to perform tests and obtain grades.	2	2.8	16	22.5	6	8.5	39	54.9	8	11	3.49	1.05	2	High
7	The incapacity of female students to cope with the evaluation methods used in teaching through serious creative strategies is a concern.	1	1.4	19	26.8	6	8.5	37	52.1	8	11	3.45	1.05	3	High
3	There is a lack of instruction for female students in critical thinking and problem-solving techniques.	1	1.4	26	36.6	8	11.3	27	38	9	13	3.24	1.13	4	Medium
5	There is a lack of proficiency in effectively communicating with diverse information sources.	1	1.4	27	38	5	7	32	45.1	6	8.5	3.21	1.09	5	Medium
4	Fear of ridicule, mockery, and criticism prevents female students from expressing their ideas.	3	4.2	23	32.4	7	9.9	32	45.1	6	8.5	3.21	1.12	6	Medium
6	There are insufficient motivational incentives to encourage female students to master the curriculum.	5	7	23	32.4	4	5.6	32	45.1	7	9.9	3.18	1.2	7	Medium
1	Getting used to traditional teaching methods.	2	2.8	34	47.9	6	8.5	25	35.2	4	5.6	2.93	1.09	8	Medium
Total mean												3.3	0.75	Medium	

The Table 13 above illustrates that the study sample's response to the dimension of "obstacles to the use of serious creative strategies related to female students" was generally moderate. The overall average agreement was 3.30 out of the 5. Statement (8), "Getting accustomed to adhering to ready-made opinions and solutions to problems," had the highest agreement among the statements related to obstacles faced by female students, ranking first with a high level of agreement (56.3%), a mean of 3.65, and a standard deviation of 1.02. This was followed by statement (2), "Relying on memorization of information to perform tests and obtain grades," which ranked second with a high level of agreement (54.9%), mean of 3.49, and standard deviation of 1.05. Conversely, statement (1), "Getting used to traditional teaching methods," ranked last, with a moderate level of agreement (35.2%), a mean of 2.93, and a standard deviation of 1.09.

Female students' tendency to adhere to pre-made opinions and solutions without exercising critical thinking skills, their reliance on memorization for academic performance, and their familiarity with traditional teaching methods were reasons for these results. Additionally, tests (mid-term and final) limit the level of questions to low cognitive levels, neglecting higher cognitive levels such as analysis, synthesis, and evaluation. This undermines the students'

confidence in their abilities. Furthermore, overcrowded classrooms, insufficient class time, and dense curriculum content are obstacles to teachers' use of creative strategies. **Thirdly**, regarding the obstacles to the use of serious creative strategies by teachers related to the curriculum:

Table 14: Descriptive Statistics on Curriculum-Related Obstacles to Using Creative Strategies.

No.	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
2	The frequency of curriculum sessions has decreased.	2	2.8	22	31	2	2.8	25	35.2	20	28	3.55	1.27	1	High
3	Curriculum planners lack a serious creative culture.	3	4.2	17	23.9	6	8.5	30	42.3	15	21	3.52	1.19	2	High
4	The curriculum lacks interest in utilizing modern evaluation methods.	2	2.8	22	31	4	5.6	31	43.7	12	17	3.41	1.18	3	High
5	The curriculum relies on preconceived notions that leave no room for thought.	4	5.6	24	33.8	6	8.5	30	42.3	7	9.9	3.17	1.17	4	Medium
1	The curriculum topics are dense.	5	7	25	35.2	6	8.5	25	35.2	10	14	3.14	1.25	5	Medium
7	The curriculum content is not compatible with serious creative strategies.	3	4.2	27	38	10	14.1	23	32.4	8	11	3.08	1.16	6	Medium
8	Serious creative strategies struggle to meet the curriculum's objectives.	2	2.9	29	41.4	8	11.4	26	37.1	5	7.1	3.04	1.1	7	Medium
9	The curriculum does not incorporate situations that promote research, thinking, and contemplation.	6	8.5	23	32.4	12	16.9	24	33.8	6	8.5	3.01	1.16	8	Medium
6	The curriculum fails to consider the individual differences among students.	5	7	33	46.5	9	12.7	17	23.9	7	9.9	2.83	1.17	9	Medium
Total mean											3.2	0.78	Medium		

The above Table 14 indicates that the study participants' responses to the dimension of "obstacles to the use of serious creative strategies related to the curriculum" were generally moderate. The overall average agreement was 3.20 out of the 5. Statement (2), "Decrease in the rate of curriculum sessions," had the highest level of agreement (35.2%), with a mean of 3.55, and a standard deviation of 1.27. It ranked first among statements related to curriculum obstacles. Statement (3), "Absence of a serious creative culture among curriculum planners," ranked second, with a high level of agreement (42.3%), mean of 3.52, and standard deviation of 1.19. Conversely, statement (6), "Failure of the curriculum to consider individual differences among students," ranked last among the statements with a moderate level of agreement (23.9%), mean of 2.83, and standard deviation of 1.17.

This result can be attributed to jurisprudence curricula not paying significant attention to serious creative strategies in terms of outcomes, content, activities, or evaluation methods. Additionally, the vastness of the content, use of traditional presentation methods, limited number of class sessions, and neglect of students' mental abilities and psychological needs hinder their use of serious creative strategies. **Fourthly**, regarding the obstacles to the use of serious creative strategies by teachers related to the learning environment:

Table 15: Descriptive Statistics on Learning Environment-Related Obstacles to Using Creative Strategies.

No.	Statement	Usage Level										Mean	Standard Deviation	Rank	Usage Level
		Very low		Low		Medium		High		Very high					
		K	%	K	%	K	%	K	%	K	%				
5	There are no material or moral rewards for distinguished teachers in the teaching profession.	0	0	9	12.7	3	4.2	35	49.3	24	34	4.04	0.95	1	High
7	There are many students in one classroom.	3	4.2	7	9.9	2	2.8	31	43.7	28	39	4.04	1.1	2	High
4	There is a rare occurrence of enrichment activities within educational institutions.	1	1.4	11	15.5	1	1.4	43	60.6	15	21	3.85	0.98	3	High
1	There are insufficient facilities to implement serious creative strategies.	0	0	11	15.5	6	8.5	40	56.3	14	20	3.8	0.94	4	High
9	Financial budgets are insufficient to meet the demands of serious creativity in education	2	2.8	12	16.9	9	12.7	27	38	21	30	3.75	1.14	5	High
3	The rare availability of necessary technologies for the application of serious creative strategies.	1	1.4	17	23.9	7	9.9	29	40.8	17	24	3.62	1.14	6	High
6	The classroom environment is not suitable for implementing serious creative strategies.	2	2.8	18	25.4	7	9.9	30	42.3	14	20	3.51	1.16	7	High
2	There is a lack of a collaborative educational environment that fosters dialogue and discussion	2	2.8	21	29.6	9	12.7	26	36.6	13	18	3.38	1.18	8	Medium
8	The classroom presents challenges in maintaining student control.	5	7	26	36.6	6	8.5	22	31	12	17	3.14	1.28	9	Medium
Total mean											3.68	0.68	Medium		

The Table 15 indicates that the study participants' responses to the dimension of "obstacles to the use of serious creative strategies related to the learning environment" were high. The overall average agreement was 3.68 out of the 5. Statement (5), "Lack of material and moral rewards for distinguished teachers in teaching," ranked first, with a high level of agreement (49.3%), a mean of 4.04, and a standard deviation of 0.95. Statement (7), "Large number of students in one classroom," ranked second, with a high level of agreement (43.7%), mean of 4.04, and standard deviation of 1.10. Conversely, statement (8), "Difficulty in controlling students in the classroom," ranked last, with a moderate level of agreement (31%), mean of 3.14, and standard deviation of 1.28.

These results suggest that implementing serious creative strategies in teaching requires significant material, financial, time, and effort resources that may not be available in the school environment. Consequently, teachers may resort to easier teaching methods, such as traditional lecturing, when addressing jurisprudent topics. Additionally, the ministry-approved curriculum did not increase the number of jurisprudent class sessions, resulting in deficiencies in certain aspects of the educational process, such as teaching methods and the use of the latest strategies.

Question Three: Are there statistically significant differences at a significance level less than 0.50 in the extent of use

of serious creative strategies by jurisprudent teachers in secondary education, according to differences in teaching experience and academic qualifications?

We used an independent sample t-test to answer this question, and the following tables show the results:

Firstly, differences in teaching experience:

Table 16: Independent Samples Test Results on the Use of Creative Strategies by Jurisprudence Teachers Based on Teaching Experience.

Dimension	Years of Teaching Experience	Number	Mean	Standard Deviation	Calculated t-value	Significance Value (sig)	Statistical Decision
Teaching planning is based on serious, creative strategies.	Less than 5 years	59	2.7	0.4	0.15	0.88	No statistically significant differences
	More than 5 years	12	2.68	0.44			
The execution of teaching follows serious and creative strategies.	Less than 5 years	59	2.11	0.34	0.32	0.75	No statistically significant differences
	More than 5 years	12	2.08	0.36			
The teaching evaluation is conducted using serious and creative strategies.	Less than 5 years	59	2.3	0.4	0.41	0.68	No statistically significant differences
	More than 5 years	12	2.35	0.41			
Overall	Less than 5 years	59	2.37	0.26	0.01	0.99	No statistically significant differences
	More than 5 years	12	2.37	0.33			

As can be seen from the Table 16, there are no statistically significant differences ($p \geq 0.05$) in the extent to which jurisprudent teachers in secondary schools use serious creative strategies in planning, carrying out, and evaluating their lessons based on their years of teaching experience. This suggests that teaching experience does not affect the extent to which jurisprudent teachers use creative strategies in secondary education.

The similarity in capabilities among teachers with varying years of service accounts for this lack of impact. No new behavioral patterns developed with increasing years of service. Additionally, all teachers underwent the same training workshops, implemented the same curricula, and received the same instructions from their educational supervisors and school leaders. Consequently, they perform their tasks in a similar manner, adhering to a unified vision that governs their work.

Moreover, proficiency in serious creative strategies depends more on professional development than years of service. Teachers with different levels of experience may view modern teaching strategies as indifferent because of factors related to the environment, students, or the teachers themselves.

Results differ from the results of Hamadneh (2023), who found statistically significant differences among mathematics teachers in the degree of use of lateral thinking skills in developing problem-solving abilities among upper elementary students, attributed to advanced years of experience.

Secondly, differences by educational qualification:

Table 17: Independent Samples Test Results on Creative Teaching Strategies by Jurisprudence Teachers Based on Educational Qualification.

Dimensions	Educational Qualification	Number	Mean	Standard Deviation	Calculated t-value	Significance Value (sig)	Statistical Decision
Planning lessons based on serious, creative teaching strategies	Bachelor's Degree	56	2.7	0.45	0.07	0.94	No statistical differences
	Postgraduate Studies	15	2.69	0.19			
Serious Creative Teaching Strategies guide the execution of teaching.	Bachelor's Degree	56	2.11	0.35	0.07	ss0.95	No statistical differences
	Postgraduate Studies	15	2.1	0.3			
The evaluation of teaching should be based on serious and creative strategies.	Bachelor's Degree	56	2.3	0.41	0.49	0.63	No statistical differences
	Postgraduate Studies	15	2.36	0.37			
Overall Observation Card	Bachelor's Degree	56	2.37	0.29	0.17	0.86	No statistical differences
	Postgraduate Studies	15	2.38	0.19			

The Table 17 indicates that there are no statistically significant differences at the significance level ($p \geq 0.05$) in the extent of using serious creative teaching strategies (Teaching Planning, Teaching Execution, Teaching Evaluation) by jurisprudent teachers in secondary education according to the variable of educational qualification. This suggests that educational qualifications do not impact the extent of jurisprudence in teachers' use of serious creative teaching strategies in secondary education as shown in Table 17.

This result may be attributed to the need for specialized training courses in creative teaching strategies. Additionally, the nature of the programs and training courses implemented by the Ministry of Education is the same for all teachers regardless of their qualifications. Furthermore, there is a lack of interest among teachers to improve their teaching performance.

5. Discussion

The findings of this study align with those of studies who also found a lack of lateral thinking skills and creative teaching strategies among Arabic language and jurisprudent teachers, respectively. The obstacles identified, particularly those related to the educational environment and curriculum design, are consistent with the literature.

However, the results differ from those studies, who found a moderate use of lateral thinking skills by Arabic language teachers in Jordan, and studies who indicated a high degree of serious creativity among gifted students in Jeddah. This suggests that the challenges faced by jurisprudent teachers in Saudi Arabia may be context specific and require targeted interventions. This lack of significant differences in teaching experience and academic qualifications is consistent with the findings of several studies. This implies that barriers to using serious creativity strategies are systemic rather than individual and addressing them requires a holistic approach that goes beyond teacher training alone. Overall, this study contributes to the limited literature on creativity in jurisprudent education in the Arab world. By providing empirical evidence of current practices and challenges, this study paves the way for further research and targeted interventions to enhance the quality and relevance of jurisprudent education in the region.

The attention on the development of communication strategies is important among educational institutions, especially in high school Islamic studies teachers. The administration of educational institutions, for instance, high schools has overlooked the importance of communication strategies in Saudi Arabia (Alghamdi; Holland, 2020) which is considered by the current study and addressed that communication strategies along with the introduction of new technology is significant for learning activities among schools. It is observed that role of communication strategies in implementing serious creativity strategies by high school Islamic studies teachers is very crucial. Similar with the current study, previous studies also highlighted the valuable importance of communication strategies (Applegate, 1980; Nutbeam, 2000; Singhal; Rogers, 2012). Hence, results of the current study are consistent with the previous studies.

6. Conclusion

This study provides valuable insights into the current use of serious creativity strategies by jurisprudent teachers in secondary education in Saudi Arabia, revealing a significant gap between their acknowledged importance and their actual classroom implementation. The findings indicated a generally weak use of serious creativity strategies, with moderate application in lesson planning, but weak usage during the critical stages of teaching implementation and evaluation. This study also identified key obstacles that hinder effective implementation, including factors related to the educational environment, teacher readiness, student receptivity, and curriculum design. Notably, the study found no significant differences based on teachers' experience or qualifications, indicating systemic challenges. The value of this study lies in its pioneering contribution to the under-researched area of Arabic literature on creativity in jurisprudence education. It provides empirical evidence of current practices and challenges, laying the groundwork for targeted interventions and reforms. The findings offer practical guidance for enhancing teacher training, modifying teaching practices, and redesigning curricula to integrate creative strategies better. By highlighting these obstacles, this study will enable policymakers and administrators to address contextual barriers and create more supportive educational environments to foster creativity. It also opens avenues for further research on the effectiveness of specific strategies, their impact on student outcomes, and potential adaptation to other subjects and educational levels. In conclusion, this study significantly advances the understanding and application of serious creativity in jurisprudence education, diagnoses current challenges, and provides a pathway for educators, curriculum developers, and researchers. This study bridges the gap between theory and practice, bringing us closer to realizing the potential of serious creativity strategies to enhance the quality and relevance of jurisprudence education in the 21st century.

6.1. Recommendations

The current study has valuable recommendations for the institutions. Most importantly, it is recommended that training teachers in communication strategies can significantly enhance the effectiveness of serious creativity strategies. Therefore, teachers in high schools should be trained through professional trainers. This training should focus on fostering the open dialogue, active listening, as well as constructive feedback, supporting teachers to better guide students through creative courses. Additionally, workshops on collaborative communication, conflict resolution, and idea facilitation will help teachers create a supportive environment for creative thinking. Since the environment of workshops on collaborative communication can enhance the learning ability of students. Incorporating digital communication tools in this training can also improve interactions, making creative sessions more dynamic as well as inclusive. Hence, this training will equip teachers to effectively promote and manage artistic engagement. Additionally, development of guidelines for jurisprudent teachers that support them with knowledge and provide procedural guidance to enhance their teaching practices in planning, implementing, and evaluating lessons using serious creativity strategies. The promotion of various jurisprudence curricula with activities, educational tools, and teaching strategies that help students develop serious creative skills.

6.2. Study Implications

This study's findings have several theoretical and practical implications. Theoretically, this study aligns with contemporary educational interests advocating the importance of employing serious creativity strategies by jurisprudent teachers in secondary education. This also contributes to the scarcity of Arabic literature on the topic. Practically, the results can guide teachers, supervisors, curriculum developers, and researchers to modify teaching

practices, develop training programs, reconsider curricula, and pave the way for further research to foster creativity in teaching jurisprudence.

6.3. Limitations and Future Directions

The study was limited to examining the extent to which jurisprudent teachers in secondary education use serious creativity strategies in three main areas: planning, implementation, and evaluation. It also focuses on identifying obstacles related to the teacher, students, curriculum, and learning environment. We conducted a study on a sample of jurisprudent teachers in secondary education at the Al-Urayja government office during the second and third semesters of the academic year 1444–1445 AH. Future studies should investigate the extent to which teachers use serious creative strategies across different educational stages and subjects. Researchers may also examine obstacles to teaching practices that motivate student interests among jurisprudent teachers in general education. We suggest conducting descriptive analytical studies to identify serious creative skills in jurisprudence and other curricula. Exploring the relationship between serious creativity and other thinking skills such as scientific thinking is another potential research direction. Furthermore, future studies should be conducted on teaching practices, obstacles, the availability of serious creativity in curricula, and its relationship with other thinking skills, such as investigating the degree of teaching execution using serious creativity strategies across different educational stages and subjects, examining obstacles to teaching practices that motivate student interests among jurisprudent teachers in general education, and studying the relationship between serious creativity and scientific thinking.

References

- Al-Hwajji, K; Al-Khazaelah, M.** (2015). *Educational Applications in Teaching Thinking*. Saudi Arabia: Al-Rushd Bookstore.
- Alghamdi, Jawaher; Holland, Charlotte.** (2020). "A comparative analysis of policies, strategies and programmes for information and communication technology integration in education in the Kingdom of Saudi Arabia and the republic of Ireland". *Education and Information Technologies*, v. 25, n. 6, pp. 4721-4745. <https://doi.org/10.1007/s10639-020-10169-5>
- Applegate, James L.** (1980). "Adaptive communication in educational contexts: A study of teachers' communicative strategies". *Communication Education*, v. 29, n. 2, pp. 158-170. <https://doi.org/10.1080/03634528009378407>
- Asrar, Zaeema; Tariq, Noman; Rashid, Hira.** (2018). "The Impact of Communication Between Teachers and Students: A Case Study of the Faculty of Management Sciences, University of Karachi, Pakistan". *European Scientific Journal*, v. 14, n. 16, pp. 32-39. <https://doi.org/10.19044/esj.2018.v14n16p32>
- Berkhof, Marianne; van Rijssen, H Jolanda; Schellart, Antonius JM; Anema, Johannes R; van der Beek, Allard J.** (2011). "Effective Training Strategies for Teaching Communication Skills to Physicians: An Overview of Systematic Reviews". *Patient Education and Counseling*, v. 84, n. 2, pp. 152-162. <https://doi.org/10.1016/j.pec.2010.06.010>
- Berkovich, Izhak; Eyal, Ori.** (2018). "Principals' emotional support and teachers' emotional reframing: The mediating role of principals' supportive communication strategies". *Psychology in the Schools*, v. 55, n. 7, pp. 867-879. <https://doi.org/10.1002/pits.22130>
- Chan, Jim Yee Him.** (2021). "Bridging the gap between ELF and L2 learners' use of communication strategies: Rethinking current L2 assessment and teaching practices". *System*, v. 101, pp. 102609. <https://doi.org/10.1016/j.system.2021.102609>
- Derwing, Tracey M; Munro, Murray J.** (2009). "Putting Accent in Its Place: Rethinking Obstacles to Communication". *Language Teaching*, v. 42, n. 4, pp. 476-490. <https://doi.org/10.1017/S026144480800551X>
- Djenic, Slobodanka; Mitic, Jelena.** (2017). "Teaching Strategies and Methods in Modern Environments for Learning of Programming." In: *14th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2017)*. pp. 189-196. <https://files.eric.ed.gov/fulltext/ED579455.pdf>
- Duta, Nicoleta; Panisoara, Georgeta; Panisoara, Ion-Ovidiu.** (2015). "The Effective Communication in Teaching. Diagnostic study regarding the academic learning motivation to students". *Procedia-Social and Behavioral Sciences*, v. 186, pp. 1007-1012. <https://doi.org/10.1016/j.sbspro.2015.04.064>
- Flammia, Madelyn; Cleary, Yvonne; Slattery, Darina M.** (2010). "Leadership roles, socioemotional communication strategies, and technology use of Irish and US students in virtual teams". *IEEE Transactions on Professional Communication*, v. 53, n. 2, pp. 89-101. <https://doi.org/10.1109/TPC.2010.2046088>
- Garbacz, S Andrew; Sheridan, Susan M; Koziol, Natalie A; Kwon, Kyongboon; Holmes, Shannon R.** (2015). "Congruence in Parent-Teacher Communication: Implications for the Efficacy of CBC for Students With Behavioral Concerns". *School Psychology Review*, v. 44, n. 2, pp. 150-168. <https://doi.org/10.17105/spr-14-0035.1>

- Hamadneh, Munes Adeeb.** (2023). "The Degree of Math Teachers' Practice of Lateral Thinking Skills in the Upper Intermediate Stage in Jordan". *Dirasat: Educational Sciences*, v. 50, n. 1, pp. 254-270. <https://doi.org/10.35516/edu.v50i1.4554>
- Hamza, Tamer S; Hassan, Doaa K.** (2016). "Consequential creativity: Student competency and lateral thinking incorporation in architectural education". *International Journal of Technology and Design Education*, v. 26, n. 4, pp. 587-612. <https://doi.org/10.1007/s10798-015-9321-4>
- Hung, Yu-Wan; Higgins, Steve.** (2016). "Learners' use of communication strategies in text-based and video-based synchronous computer-mediated communication environments: Opportunities for language learning". *Computer Assisted Language Learning*, v. 29, n. 5, pp. 901-924. <https://doi.org/10.1080/09588221.2015.1074589>
- Ishchenko, Valentina Leonidivna; Gorbunoyova, Sofya Olehivna.** (2024). "Innovative Teaching Methods for Training Competitive Specialists at Foreign Language Classes". <http://dspace.puet.edu.ua/bitstream/123456789/13690/3/Innovative%20teaching%20methods%20for%20training%20competitive%20specialists%20at%20foreign%20language%20classes.pdf>
- Kaphingst, Kimberly A; Persky, Susan; McCall, Cade; Lachance, Christina; Beall, Andrew C; Blascovich, Jim.** (2009). "Testing Communication Strategies to Convey Genomic Concepts Using Virtual Reality Technology". *Journal of Health Communication*, v. 14, n. 4, pp. 384-399. <https://doi.org/10.1080/10810730902873927>
- Kerimbayev, Nurassyl; Nurym, Nurdaulet; Akramova, Aliya; Abdykarimova, Saule.** (2020). "Virtual educational environment: interactive communication using LMS Moodle". *Education and Information Technologies*, v. 25, n. 3, pp. 1965-1982. <https://doi.org/10.1007/s10639-019-10067-5>
- Koh, Joyce Hwee Ling; Kan, Rebecca Yen Pei.** (2021). "Students' use of learning management systems and desired e-learning experiences: Are they ready for next generation digital learning environments?". *Higher Education Research & Development*, v. 40, n. 5, pp. 995-1010. <https://doi.org/10.1080/07294360.2020.1799949>
- Kristiawan, Muhammad; Muhaimin, Muhaimin.** (2019). "Teachers' Obstacles in Utilizing Information and Communication Technology". *International Journal of Educational Review*, v. 1, n. 2, pp. 56-61. <https://doi.org/10.33369/ijer.v1i2.8846>
- Lacarcel, Francisco Javier; Huete, Raquel.** (2023). "Digital communication strategies used by private companies, entrepreneurs, and public entities to attract long-stay tourists: a review". *International Entrepreneurship and Management Journal*, v. 19, n. 2, pp. 691-708. <https://doi.org/10.1007/s11365-023-00843-8>
- Lamb, Richard; Annetta, Leonard; Vallet, David.** (2015). "The Interface of Creativity, Fluency, Lateral Thinking, and Technology While Designing Serious Educational Games in a Science Classroom". *Electronic Journal of Research in Educational Psychology*, v. 13, n. 2, pp. 219-242. <https://doi.org/10.14204/ejrep.36.14110>
- Lamos, Vasileios; Mintz, Joseph; Qu, Xiao.** (2021). "An artificial intelligence approach for selecting effective teacher communication strategies in autism education". *npj Science of Learning*, v. 6, n. 1, pp. 25. <https://doi.org/10.1038/s41539-021-00102-x>
- Li, Ming; Zhuang, Xiaosheng; Bai, Lu; Ding, Weiping.** (2024). "Multimodal graph learning based on 3D Haar semi-tight framelet for student engagement prediction". *Information Fusion*, v. 105, pp. 102224. <https://doi.org/10.1016/j.inffus.2024.102224>
- Magd, Hesham; Khan, Shad Ahmad.** (2022). "Effectiveness of using online teaching platforms as communication tools in higher education institutions in Oman: Stakeholders perspectives. Journal of Content". *Community and Communication*, v. 16, n. 8, pp. 148-160. <https://doi.org/10.31620/JCCC.12.22/13>
- More, Ramachandra; Jagadeesh, B.** (2017). "A correlational study of lateral thinking ability and academic achievement of secondary school students". *International Journal of Advanced Educational Research*, v. 2, n. 3, pp. 38-42. <https://themultidisciplinaryjournal.com/assets/archives/2017/vol2issue3/2-3-38-538.pdf>
- Nutbeam, Don.** (2000). "Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century". *Health Promotion International*, v. 15, n. 3, pp. 259-267. <https://doi.org/10.1093/heapro/15.3.259>
- Oketch, Sandra Y; Ochomo, Edwin O; Orwa, Jeniffer A; Mayieka, Lilian M; Abdullahi, Leila H.** (2023). "Communication strategies to improve human papillomavirus (HPV) immunisation uptake among adolescents in sub-Saharan Africa: A systematic review and meta-analysis". *BMJ Open*, v. 13, n. 4, pp. e067164. <https://doi.org/10.1136/bmjopen-2022-067164>
- Phillips, Denis Charles.** (2014). *Encyclopedia of Educational Theory and Philosophy*. Sage Publications. <https://doi.org/10.4135/9781483346229>
- Rosenbaum, John.** (2001). "Practical Creativity: Lateral Thinking Techniques Applied to Television Production Education". *International Journal of Engineering Education*, v. 17, n. 1, pp. 17-23. <https://www.ijee.ie/articles/Vol17-1/IJEE1169.pdf>

- Singhal, Arvind; Rogers, Everett.** (2012). *Entertainment-Education: A Communication Strategy for Social Change*. Routledge. <https://doi.org/10.4324/9781410607119>
- Sutiyatno, Sukris.** (2018). "The Effect of Teacher's Verbal Communication and Non-verbal Communication on Students' English Achievement". *Journal of Language Teaching and Research*, v. 9, n. 2, pp. 430-437. <https://doi.org/10.17507/jltr.0902.28>
- Tong, Peiru; Yin, Zhaohui; Tsung, Linda.** (2024). "Student engagement and authentic language use on WeChat for learning Chinese as a foreign language". *Computer Assisted Language Learning*, v. 37, n. 4, pp. 687-719. <https://doi.org/10.1080/09588221.2022.2052906>
- Vermeulen, Emma J; Volman, Monique LL.** (2024). "Promoting Student Engagement in Online Education: Online Learning Experiences of Dutch University Students". *Technology, Knowledge and Learning*, pp. 1-21. <https://doi.org/10.1007/s10758-023-09704-3>
- West, Richard.** (1994). "Teacher-student communication: A descriptive typology of students' interpersonal experiences with teachers". *Communication Reports*, v. 7, n. 2, pp. 109-118. <https://doi.org/10.1080/08934219409367593>
- Wijayanto, Agus; Hastuti, Diyah Murti.** (2021). "Communication Strategies by Indonesian EFL Learners in English Conversation Class". *Jurnal Arbitrer*, v. 8, n. 1, pp. 72-81. <https://doi.org/10.25077/ar.8.1.72-81.2021>
- Wu, Mingchang; Siswanto, Ibnu; Suyanto, Wardan; Sampurno, Yoga Guntur; Tan, Weijen.** (2018). "Creative Thinking Curriculum Infusion for Students of Teachers' Education Program". *Jurnal Pendidikan Teknologi Dan Kejuruan*, v. 24, n. 1, pp. 1-12. <https://doi.org/10.21831/jptk.v24i1.16883>